

Project Pollinator

Building Gardens for Pollinators

A Comprehensive “How-to” Guide



Project Pollinator

Purpose

To provide a guide for pollinator and food garden building activities to link citizens and the environment.

Why is this important?

Save Pollinators!

- ❖ Pollinators provide a vital **ecosystem service** by transferring pollen between plants to facilitate reproduction, making them responsible for **1/3 of the bites of food** eaten each day!
- ❖ They are in decline primarily because of **habitat loss** and **pesticide use**.

Provide Connections

- ❖ The advancement of **technology** has resulted in a growing **divergence** of humans and the environment.
- ❖ **Gardening** for pollinators and food can create links between humans and **nature** while fostering environmental stewardships.

Did You Know?

Pollinators like monarch butterflies are food specialists – in their larval stage, the caterpillars will only eat milkweed plants.



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How to Use This Guide

This guide provides **steps** to create a pollinator garden along with a food garden, if desired.

- ❖ This can be used by educators, homeowners, or organizations wishing to **create pollinator habitat** and a connection between the **conservation** of pollinators and healthy, natural food.
- ❖ If you are already on your journey to creating a garden, this will provide **ideas** for use, environmental interpretation **activities**, and **guidance** for sustainability. **Sustainability** refers to the efforts necessary to keep the gardens growing and thriving in an environmentally-friendly manner.
- ❖ Use the **Overview** to jump ahead to where you are on your journey.
- ❖ Use the **Resources** at the end to learn more!



Did You Know?

There are a variety of gardening guides for native plants throughout the United States. For more information, check out:

<http://www.fs.fed.us/wildflowers/pollinators/gardening.shtml>

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Overview

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Choose Your Garden Type

To *Bee* or Not to *Bee*,

That is the Question!



If you are using this guide, you have chosen to *Bee* – the next question is, to *Pollinate* or to *Pollinate and Eat*?

Pollinate – Pollinator Garden

- ❖ The goal of this type of garden is to **provide** nectar and larval host plant **sources** to pollinator species.
- ❖ These gardens are useful to attract pollinators, **increase biodiversity**, and beautify the landscape locally.

Pollinate and Eat – Pollinator & Food Gardens

- ❖ Building these types of gardens in conjunction will not only **benefit** pollinators but it will put to use the **ecosystem** service they provide.
- ❖ Using the combination of these gardens can provide great **learning** opportunities for students or citizens wanting to learn more about the environment and the **link** between pollinators and food.

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Pollinator Garden

Provide nectar and larval host sources for pollinators.

General pollinator gardens typically have **brightly colored flowers** that attract all types of pollinators. If you are hoping to attract a specific species that is a habitat or food specialist, like the **monarch butterfly**, you will also need to plant larval host sources.

Nectar garden – It is important to plant species that will bloom from early summer through fall in order to provide constant nectar sources. Be sure to **plant native** species – these will vary by regions so use [Plant Guides](#) for help or check out the Pollinator Partnership’s [BeeSmart](#) app! For a list of **common host plants**, check out [Gardens With Wings](#).



Monarch garden – In addition to nectar plants, you will need to include **milkweed plants** to feed the caterpillars. [Here](#) are some useful [resources](#) for milkweed species. Don’t forget a [puddling area](#)! Butterflies need these for water and additional nutrients.

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Pollinator / Food Gardens

Use the pollination ecosystem service to provide a link between pollinator species and food.

Building pollinator and food gardens in close proximity can not only emphasize the link between the two but can assist in the successful production of **healthy food**.

Your pollinator and food gardens do not need to be large to be successful. They can fit into **small** lots like window boxes or be a few hundred square feet **or larger!**

The construction of food gardens is beneficial to provide safe, healthy food for yourself, your family, and your community. It also helps to provide a vital link to the **origin of healthy food** so younger generations can understand and appreciate the **connection with the land** and other non-human species.



Did You Know?

There are nearly **200,000** different animal pollinator species around the world. Check this out:

http://www.plants.usda.gov/pollinators/Native_Pollinators.pdf

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Create Goals

What are your goals?

Your garden **goals** should be **well-defined** from the start since the goals dictate what steps you need to follow. If you are working with a large **group of people**, make sure that your **goals are aligned** at the start to ensure success!

- ❖ If the goal of the garden is to simply **attract pollinators**, a basic pollinator garden will be sufficient.
- ❖ If the goal is to **support monarchs** or another food specialist, make sure you have the plant species they need.
- ❖ If the goal is to bring more pollinators to your area to **pollinate food** or to use the gardens in conjunction as an **educational tool**, make sure you have some lesson plan ideas or discussions to link the two together.

❖ **Goal Examples:**

Increase pollinator habitat, specifically supporting monarch butterflies.

- ❖ **Defined Goal:** Construct a pollinator garden that includes multiple native nectar species, region-specific milkweed plants, and a puddling area.

Increase understanding among students/citizens about the connection between pollinators and our food sources.

- ❖ **Defined Goal:** After participating in garden activities Y and Z, x% of students/citizens will be able to explain how food sources depend on pollinators.



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Find Partners / Funding

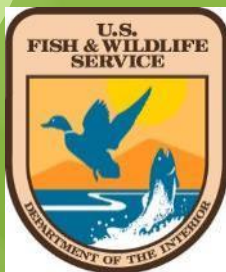
Partnership Opportunities

The **size** and **location** of your garden will dictate the need for partners and funding. The cost can range from less than \$100 to more than \$1,000 depending on size, selected plants, and condition of location.

- ❖ If you are doing a **small at-home garden**, you will likely not need external support and funding.
- ❖ If you are doing a **larger garden** for the benefit of multiple people or groups, **partners** and **funding** may be essential for your project.

There are many organizations, both **governmental** and **non-governmental** (NGOs), that are supporting the restoration of pollinator habitat. This support is for **all types of land** including both private and public. These organizations not only provide **guidance** for pollinator gardens but may provide **partnership support**.

Click on the emblems to learn more about how they are involved!



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Find Partners / Funding

Partnership Opportunities

Seeking partnerships within your community is extremely beneficial because it **encourages environmental stewardship** and participation among the local citizens, which in turn can lead to **greater sustainability** of the project.

- ❖ **Community centers** and **churches** are great locations for community pollinator and food gardens because of their **centralized locations** and openness to the public. These locations can assist in **fostering community involvement** and partnerships.

Larger **locations** and support from **partners** may allow for bigger or more elaborate gardens. Be sure that you and your partners are on the **same page** for your gardening **goals** before seeking funding.



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Find Partners / Funding

Funding Opportunities

There are several funding opportunities for pollinator gardens depending on the purpose and size. **Opportunities may change** depending on the time of year and availability of program funding, especially if they are grants. Below are some potential funding opportunities for your gardens. These are not all the opportunities that exist so be sure to use your favorite **Internet** search engine to see what is currently available. Additionally, **seek** out funding **opportunities locally** through businesses and governmental agencies.

NGOs:

- ❖ The **Green Education Foundation** provides a **Green Thumb Challenge Grant** of \$250 for organizations to support the sustainability of a developed youth garden. *Application deadline is September 30th for the following year.*
- ❖ **KidsGardening.org** provides information about many open and upcoming grants that may potentially be useful depending on your project, location, and timing.
- ❖ **The Pollination Project** provides seed grants of \$1,000 to promote projects that create a more sustainable world and future.



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Find Partners / Funding

Funding Opportunities

NGOs:

- ❖ The **Wild Ones** organization provides a **Seeds for Education (SFE) Grant Program** for schools and non-profit organizations wishing to enhance schoolyards and provide learning opportunities for students. They provide cash grants of \$500 for seeds and plants and also may provide assistance in locating specific information and experts to support your project. *Applications are due by October 15th for the following year.*
- ❖ The **Whole Kids Foundation** provides grants for **US School Gardens** that create an edible and educational garden. Non-profit organizations may also apply if they are working in conjunction with a school. They also provide an **Extended Learning Garden Grant** for gardens not located at schools. *Applications are due by October 31st for the following year.*

Federal:

- ❖ **U.S. Fish & Wildlife Service** has a **Wildlife and Sport Fish Restoration Program** which supports multiple grant programs providing funding opportunities to local, private, and State organizations. The **State Wildlife Grant Program (SWG)** can potentially be used to support pollinator species directly and indirectly through habitat conservation actions.



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Find Partners / Funding

Funding Opportunities

Other:

- ❖ Multiple businesses like **Lowe's**, **Home Depot**, **General Mills**, and others provide grants or may donate materials to garden projects and schools. Contact your local businesses to see how they might be willing to help. Many times all it requires is a letter requesting material donations printed on official letterhead!
- ❖ **Scott's Miracle Gro** has a **GRO1000 Grant Program** that encourages community gardening and green spaces within neighborhoods. They award Grassroots Grants up to \$1,500 to communities wishing to develop public green spaces, pollinator habitats, and edible gardens locally.
- ❖ Check with your **local government agencies** to see if there are any programs that may help fund your project. There may be **Beautification Grants** you can use to start a garden in a public place or local funding from NGOs and federal agencies working together in or near your community.



Did You Know?

Save Our Monarchs is a NGO raising awareness about saving monarch butterflies by selling milkweed seed packets. Check this out:

<http://www.saveourmonarchs.org/>

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Create Timeline / Plan Steps

Now that you have your partners and funding set, it is time to **create** your timeline and **plan** your steps. Visualizing your plan and setting attainable goals will be **instrumental** in your success!

- ❖ **Be realistic** with your timeline and steps. It can be exciting to jump right in but make sure your **timing** matches nature's so the plants have a chance for success.
- ❖ **Start in the fall.** It is **best to start** ground preparation in the **fall** with subsequent planting in the spring. Gardens can be completely constructed in the **spring** as well but be prepared to be **more hands-on** to speed up the processing of organic material and provide support to the plants as they grow.
- ❖ **Plan for sustainability.** Make sure your timeline and steps **include actions** past the initial construction such as environmental interpretation activities and **sustainable plans** for future garden maintenance.
- ❖ **Make a materials checklist.** This will help you keep track of what you need, when you need it, quantities, and costs of items.

Garden Items	Potential Vendor	Cost	Quantity	Total	Source/Contact Specifics	Need-By Date
<u>Pollinator Garden</u>						
Plants						
Compost						
Cardboard						
Mulch						
Signage (Schoolyard Habitat / Monarch Waystation)						
<u>Food Garden</u>						
Plants						
Trees						
Bushes						
Cardboard						
Straw						
Mulch						
Fencing						
<u>Additional Items</u>						
Tools						
Benches						
Monarch Rearing Kits						
Milkweed Seed Packets						
			Total			

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Create Timeline / Plan Steps

Timeline / Step Example

Fall Start

Sept-Oct: Decide on size of garden; Sheet mulch ground

Nov-Feb: Decide on species to be planted; Secure funding if needed; Create layout design

Mar-Apr: Purchase plants and gardening items; Secure volunteer support for planting

Apr-May: Plant!; Hold garden activities

May-Onward: Assess garden and activities; Sustain!

Spring Start

Jan-Feb: Decide on size of garden and species to be planted; Secure funding if needed; Create layout design

Mar-Apr: Sheet mulch ground; Purchase plants and gardening items; Secure volunteer support for planting

Apr-May: Plant!; Hold garden activities

May-Onward: Assess garden and activities; Sustain!



Did You Know?

The size of your garden does not matter as long as you provide adequate nectar plant, host plant, and water sources for pollinators.

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Construct Garden

The fun part – time to get your hands dirty!

The **best way to start** these gardens is to prepare the ground in fall and plant in spring; however, it is possible to do it all in spring if you have a restricted timeline.

- ❖ A **fall start** allows for the **slow accumulation** of organic material and avoids the laborious weeding and turning over of the soil.
- ❖ A **spring start** will require **abbreviated ground preparation**, the addition of soil amendments, and increased watering to speed up the processing of the organic material.

In **preparing for construction**, make sure that you are meeting your timeline for material purchases so you have the correct type and amount of material for when you start.

Necessary items will vary depending on which gardening rules you use but here are some suggestions: *cardboard, compost, mulch, straw, garden tools, plants, a way to water, puddling area supplies if it is a butterfly garden, and fencing.*



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Construct Garden

Garden Tips

- ❖ If you are planting a large garden, or doing pollinator and food gardens in conjunction, it may be useful to **organize volunteer days** for prepping and planting in order to share the workload and get your **community involved**. This is also a great opportunity for organic, hands-on activities!
- ❖ For **pollinator gardens**, remember to use [guides](#) or the [BeeSmart](#) app to choose a **variety** of nectar species to provide continual food sources for pollinators. Also, don't forget **host plant** species like milkweed if you are hoping to support a specific pollinator!
- ❖ For **food gardens**, your planting times will depend on the food species you have chosen. [The Old Farmer's Almanac](#) (Almanac), [National Gardening Association](#), and [Cornell University](#) have general guides to assist with timing. You can also find local guides by searching your location with the [Almanac](#) and [Urban Farmer](#).
- ❖ If you are planting **woody species**, like trees or shrubs, do so before sheet mulching your garden areas.

Did You Know?

There are many ways to sheet mulch a garden. For a substantial way, check out:

<http://tobyhemeway.com/resources/how-to-the-ultimate-bomb-proof-sheet-mulch/>



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Construct Garden

Planting Tips

- ❖ Make sure you know what kind of **ground** you will be planting in: poorly-drained, well-drained, clay, silt, or others, as well as the acidity of the soil. These **characteristics** will be important for deciding which species to plant.
- ❖ When selecting your plant species, make sure you know their **fully-grown dimensions**. This will be important when deciding their placements so you do not overcrowd them.
- ❖ If you are planting shortly after preparing the garden area in the spring, you may need to **cut** through the **cardboard**. Simply cut it back enough so you can reach the soil for planting. After planting, place the cardboard back around the plant to **deter weed growth**.
- ❖ If you are transplanting, **soak the plant** in water before putting it in its new location to help lessen the shock. Also, make sure your hole is large enough to **lay out the roots carefully**.
- ❖ When re-covering the plants, make sure the **mulch does not get mixed** in with the soil because it can lessen the amount of available nitrogen. **Nitrogen** is an **essential nutrient** needed for plant growth.



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Construct Garden

Puddling Area Tips

If you are doing a butterfly garden and will be adding a **puddling area**, plan for the space within your garden. There are many ways to create a puddling area but here are a **few simple steps**:

- ❖ Fill a small **clay saucer** with **sand** and bury it so the top is flush with the mulch layer. ****TIP*** Creating this at ground level will provide a wind break and more protection for the butterflies but make sure it also receives sunlight.*
- ❖ Add enough **water** to **saturate** the sand. ****TIP*** During hot days, the puddling area may dry out easily, especially with those made with shallow dishes, so be sure to water it regularly.*
- ❖ Add **salt** and **overripe fruit** to provide additional nutrients. ****TIP*** Add these ingredients occasionally and make sure to cut up the fruit so it is easier for the butterflies to consume.*



Did You Know?

The minerals in these puddling areas help male butterflies create pheromones needed to attract females.

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Construct Garden

Fall Start Steps

- ❖ **Clear the space** for the garden(s) by cutting down tall grass and weeds.
- ❖ Put down a **thin layer of compost** covering the area of your garden(s). **TIP* There are many different kinds of compost so make sure it is mature, good quality, and a type that is acceptable to be used in food gardens.*
- ❖ On top of the compost, put down pieces of **overlapping cardboard**. **TIP* Use non-waxy cardboard that does not have a lot of writing on it.*
- ❖ On top of the cardboard, lay down **several inches of straw** and add in **leaf litter** and **free soil**. **TIP* This will supplement the accumulation of organic material so the thicker the better.*
- ❖ Then **mulch the entire garden area**, preferably with at least 4 inches of mulch. **TIP* Like compost, there are several varieties of mulch, aim for a natural, non-dyed mulch.*
- ❖ Leave until spring! In the **spring, weed** the area then **plant!**



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Construct Garden

Spring Start Steps

If you are prepping in the spring but **planting in the fall**, use the same steps outlined in the Fall Start. You may need to water the organic material in order to help it process by fall.

If you are **planting shortly after prepping** the garden in the spring, start ground preparation as soon as the ground is clear of snow/ice:

- ❖ **Turnover** and break up the top layer of grass.
- ❖ Put down a **thicker layer of compost** (at least 2 inches) covering the area of your garden(s).
- ❖ On top of the compost, put down pieces of **overlapping cardboard**.
- ❖ Then **mulch the entire garden area**, preferably with at least 4 inches of mulch.
- ❖ Make sure to **water the area** to help with the processing of the organic material.
- ❖ **Let the organic material process** for at least a month and plant in late spring for the pollinator garden and late spring/early summer for the food garden.



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Hold Activities

The activities in these gardens can range from organic, hands-on activities to structured lesson plans and everything in between! There are a **variety of ways to provide a link** between pollinators and food so choose whichever method you feel is best fit for your garden.

Organic, Hands-on Activities are useful for providing an environmental connection to students and community members through non-traditional ways of learning. They can be as simple as walking through the gardens and having discussions about pollination and species selection, to journaling observations about non-human garden visitors, to discussions of creation.

❖ **Timing:** Whatever you choose!

❖ **Who Benefits:** Those hoping for environmental connections; Students/Citizens requiring a different type of learning; Anyone eager to spend time outdoors!

❖ **Examples:** **Impromptu discussions** about floral and faunal species observed in garden; **Exploring** the garden to strengthen environmental stewardship; **Creating** tangible connections between pollinators and food by discussing the need for pollination of the food crop and nectar plant species planted in gardens; **Observational studies** on which plants attract the most pollinators; **Learning** about when to plant and harvest food crop species; Learning about nectar plants by creating plant identification cards.



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Hold Activities

Structured Lesson Plans are useful to provide specific education covering practical skills like the scientific process, inquiry, math, or sustainability. The lessons used may vary depending on the type of garden(s) you have built and your intended audience. Many materials can be sourced for free from various organizations.

❖ **Timing:** 10 minutes – 1 hour or longer, depending on the lesson plan chosen.

❖ **Who Benefits:** Teachers hoping to incorporate garden lessons into educational requirements; Students needing real-world connections for practical skills; Citizens wishing to further knowledge and skills in a real-world environment.

❖ **Examples:** The [Whole Kids Foundation](#) has put together a great curriculum of 35 lesson plans for PreK–5th grade covering the exploration of healthy foods and gardening.

[The Pollinator Partnership](#) has put together a comprehensive curriculum highlighting the importance of pollinators and pollinator-friendly habitat for students covering 3rd–6th grades.

[The University of Minnesota Monarch Lab](#) has a variety of [educational curricula](#) focused on monarchs and gardens as well as research opportunities and programs geared toward higher education learning and citizen science.



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Hold Activities

Structured Lesson Plans

[Growing Minds](#) is a great organization linking students to sustainable agriculture and gardening by providing lesson plans and activities for both organic and structured learning. Their lessons cover PreK to high school students and include great descriptions of the activities as well as suggestions for which month to do the lessons.



[Additional Learning and Activity Opportunities](#) can be found through numerous federal organizations and NGOs. These activities can include citizen science programs focused on different pollinator species, like birds and butterflies, and their migrations.

[PollinatorLIVE](#) is a distance learning platform formed by a large partnership of federal organizations and NGOs in order to provide information on pollinators and gardening. They have [lesson plans](#) covering PreK-12th grade, as well as webcasts and [citizen science](#) opportunities.



[Journey North](#) is a free tool for those wishing to report sightings, view maps, take pictures, and track migrations of many different species including the monarch butterfly.



[eBird](#) app was created by the Cornell Lab of Ornithology and the National Audubon Society to provide information about birds and promote citizen science. It encourages users to record and report bird sightings to provide data for maps and graphs.



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Assess

After the garden is created and activities are held, it is **time to assess**.

Your type of assessment will be **based on your goals** and how you want to determine your success.

- ❖ If you plan to further expand your garden or construct additional gardens in other areas, it is beneficial to **get feedback** from others on the success of your project in order to have unbiased perspectives to shape future efforts. This can be as easy as a **discussion** with your team or stakeholders or a more formal **survey** sent to those involved with or affected by the gardens and activities.
- ❖ Some **simple questions** for assessment are: *Have we met our goals? What was realized or learned during the process? What should be changed, fixed, or added? What are the next steps?* Other questions more specific to your goals and project can be added in as well. Be creative and thoughtful with your assessment because it may help determine how to **improve** the current garden and activities or **better shape** future projects.



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Sustain

When you get started with construction, you should already be thinking about how you will be **sustaining** the garden. This is especially important if you are building a school garden with reduced support over the **summer**.

- ❖ Although **pollinator gardens** are quite resilient on their own, they will still need **maintenance**. The gardens will need to be watered, weeded, and may possibly require the replacement of plants that do not start. If you have added a **puddling area**, you will have to continue to add water and nutrients to the sand to support your pollinators. Doing these tasks on a **regular basis** makes them less time-consuming and will help to ensure success. Plus it is great **outside** work!
- ❖ **Food gardens** will also need continual **maintenance** including watering, weeding, planting, harvesting, and prepping for the next season. The best part of this maintenance is it can be **edible**! It is a great chance to encourage lessons and hands-on **learning** among youth and local citizens.
- ❖ Set up a **plan** and a **timeline** moving forward and get **commitment** from your team or additional volunteers to ensure your hard efforts will be sustained. For example, watering of the pollinator garden and puddling area can be a **fun activity** for students on a hot summer day and “**Harvest Days**” for food gardens can be organized to get citizens involved and make the work seem like fun!



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Certify, Share & Repeat!

- ❖ **Certifying** your pollinator garden serves multiple purposes including acknowledging your **hard work** and providing **information** for organizations encouraging pollinator habitat restoration.
- ❖ There are a few **ways to certify** as long as you meet the specific requirements – check out these places for more information:
 - ❖ [Certified Wildlife Habitat](#) through the National Wildlife Federation
 - ❖ [Monarch Waystation](#) through Monarch Watch
 - ❖ [Million Pollinator Garden Challenge](#) through The National Pollinator Garden Network
- ❖ **Share** your hard work! Take pride in what you have accomplished and **encourage others** to do the same. **Social media** is an easy way to share pictures and progress, find encouragement and support, and get others involved. **#ProjectPollinator #polliNATION**
- ❖ **Repeat** these activities at home or in another location, anywhere you can to make more **suitable pollinator habitat**. The more pollinators and gardens, the more healthy food for your family and community!



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Hyperlinks

Hyperlinks from Images/Text:

Page 5

- ❖ **Plant Guides** <http://www.pollinator.org/guides.htm>
- ❖ **BeeSmart** <http://www.pollinator.org/beesmartapp.htm>
- ❖ **Gardens With Wings** <http://www.gardenswithwings.com/what-is-a-butterfly-garden/host-plants.html>
- ❖ **Here** <http://monarchwatch.org/bring-back-the-monarchs/milkweed/milkweed-profiles/>
- ❖ **Resources**
<http://monarchjointventure.org/images/uploads/documents/MilkweedFactSheetFINAL.pdf>
- ❖ **Puddling Area** <http://homeguides.sfgate.com/make-butterfly-puddling-pool-104284.html>

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- ❖ **U.S. Fish & Wildlife Service Emblem**
<http://www.fws.gov/savethemonarch>
- ❖ **National Wildlife Federation Emblem**
<http://www.nwf.org/Garden-For-Wildlife.aspx>
- ❖ **Pollinator Partnership Emblem**
<http://www.pollinator.org/guides.htm>
- ❖ **U.S. Forest Service Emblem**
<http://www.fs.fed.us/wildflowers/pollinators/gardening.shtml>

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Hyperlinks

Hyperlinks from Images/Text:

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- ❖ **The Xerces Society Emblem** <http://www.xerces.org/pollinator-conservation/>

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- ❖ **Green Education Foundation**
<http://www.greeneducationfoundation.org/greenthumbchallengesub/green-thumb-challenge-winners.html>
- ❖ **KidsGardening.org** <http://www.kidsgardening.org/garden-grants/>
- ❖ **The Pollination Project** <https://thepollinationproject.org/>

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- ❖ **Wild Ones** <http://www.wildones.org/seeds-for-education/sfe/>
- ❖ **Whole Kids Foundation**
<https://www.wholekidsfoundation.org/schools/programs/school-garden-grant-program>
- ❖ **Extended Learning Garden Grant**
<https://www.wholekidsfoundation.org/static-pages/us-extended-learning-garden-grant>
- ❖ **Wildlife and Sport Fish Restoration Program**
<https://www.fws.gov/pollinators/programs/assistance.html>

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- ❖ **General Mills**
<http://www.eatrightfoundation.org/foundation/championgrants/>

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Hyperlinks

Hyperlinks from Images/Text:

Page 12

❖ **Scott's Miracle Gro**

<http://scottsmiraclegro.com/responsibility/gro1000>

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❖ **Guides** <http://www.pollinator.org/guides.htm>

❖ **BeeSmart** <http://www.pollinator.org/beesmartapp.htm>

❖ **The Old Farmer's Almanac**

<http://www.almanac.com/content/vegetable-garden-planner>

❖ **National Gardening Association**

<http://garden.org/learn/library/foodguide/veggie/>

❖ **Cornell University**

<http://www.gardening.cornell.edu/homegardening/scene0391.html>

❖ **Almanac** <http://www.almanac.com/gardening>

❖ **Urban Farmer** <http://www.ufseeds.com/Vegetable-Planting-Schedules.html>

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❖ **Whole Kids Foundation**

https://www.wholekidsfoundation.org/filewrapper/?filename=https://www.wholekidsfoundation.org/downloads/pdfs/AHA_WKF_Curriculum.pdf

❖ **The Pollinator Partnership**

<http://www.pollinator.org/nappc/PDFs/curriculum.pdf>

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Hyperlinks

Hyperlinks from Images/Text:

Page 22

- ❖ **The University of Minnesota Monarch Lab**
<http://monarchlab.org/>
- ❖ **Educational Curricula** <http://monarchlab.org/education-and-gardening/curricula>

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- ❖ **Growing Minds** <http://growing-minds.org/lesson-plans-landing-page/>
- ❖ **PollinatorLIVE** <http://pollinatorlive.pwnet.org>
- ❖ **Lesson Plans** <http://pollinatorlive.pwnet.org/teacher/lessons.php#8>
- ❖ **Citizen Science** <http://pollinatorlive.pwnet.org/teacher/citizen.php>
- ❖ **Journey North** <https://www.learner.org/jnorth/>
- ❖ **eBird** <http://ebird.org/content/ebird/>

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- ❖ **Certified Wildlife Habitat** <http://www.nwf.org/Garden-For-Wildlife/Certify.aspx>
- ❖ **Monarch Waystation**
<http://www.monarchwatch.org/waystations/certify.html>
- ❖ **Million Pollinator Garden Challenge**
<http://pollinator.org/mpgcmmap/>

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Resources

Pollinator/Monarch Conservation

- ❖ **Monarch Joint Venture** <http://www.monarchjointventure.org/get-involved/create-habitat-for-monarchs/>
- ❖ **Monarch Watch** <http://www.monarchwatch.org/>
- ❖ **National Pollinator Garden Network**
<http://millionpollinatorgardens.org/resources/>
- ❖ **National Wildlife Federation**
<http://www.nwf.org/Pollinators/Monarch.aspx>
- ❖ **Pollinator Partnership** <http://www.pollinator.org/>
- ❖ **U.S. Fish & Wildlife Service** <http://www.fws.gov/savethemonarch/>
- ❖ **U.S. Forest Service** <http://www.fs.fed.us/wildflowers/pollinators/>
- ❖ **The Xerces Society** <http://www.xerces.org/pollinator-conservation/>

Gardening Assistance

Pollinator

- ❖ **Gardens With Wings** <http://www.gardenswithwings.com/what-is-a-butterfly-garden.html>
- ❖ **National Wildlife Federation** <http://www.nwf.org/Garden-For-Wildlife.aspx>
- ❖ **North American Butterfly Association**
<http://nababutterfly.com/start-butterfly-garden/>
- ❖ **U.S. Forest Service**
<http://www.fs.fed.us/wildflowers/pollinators/gardening.shtml>

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Resources

Gardening Assistance

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- ❖ **USDA Natural Resources Conservation Service**

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/pollinate/gardeners/>

Food

- ❖ **Cornell University Gardening Resources**

<http://gardening.cals.cornell.edu/garden-guidance/foodgarden/>

- ❖ **Growing a Greener World**

<http://www.growingagreenerworld.com/tips-for-growing-the-perfect-vegetable-garden/>

- ❖ **Kids Gardening** <http://www.kidsgardening.org/>

- ❖ **National Gardening Association** <http://garden.org/>

- ❖ **The Old Farmer's Almanac** <http://www.almanac.com/vegetable-garden-planning-for-beginners>

- ❖ **Round Rock ISD** [http://p5cdn4static.sharpschool.com/.../RRISD%20School%20Garden%20Guide%20Book%20\(1\).pdf](http://p5cdn4static.sharpschool.com/.../RRISD%20School%20Garden%20Guide%20Book%20(1).pdf)

- ❖ **United States Department of Agriculture**

<https://afsic.nal.usda.gov/farms-and-community/urban-agriculture>

- ❖ **USDA Natural Resources Conservation Service**

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/16/nrcs143_019199.pdf

- ❖ **Urban Organic Gardener** <http://www.urbanorganicgardener.com/>

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Resources

Certification

- ❖ **Million Pollinator Garden Challenge**
<http://millionpollinatorgardens.org/about/>
- ❖ **Monarch Watch Waystation Certification Program**
<http://www.monarchwatch.org/waystations/certify.html>
- ❖ **National Wildlife Federation Garden For Wildlife Program**
<http://www.nwf.org/Garden-For-Wildlife/Certify.aspx>
- ❖ **North American Butterfly Association**
<http://nababutterfly.com/butterfly-garden-certification-program-home/>

Environmental Education Material

- ❖ **Growing Minds** <http://growing-minds.org/lesson-plans-landing-page/>
- ❖ **Life Lab** <http://www.lifelab.org/store/curriculum/>
- ❖ **PollinatorLIVE**
<http://pollinatorlive.pwnet.org/teacher/lessons.php#8>
- ❖ **Pollinator Partnership**
<http://www.pollinator.org/nappc/PDFs/curriculum.pdf>
- ❖ **The University of Minnesota Monarch Lab**
<http://monarchlab.org/education-and-gardening/curricula>
- ❖ **Whole Kids Foundation**
<https://www.wholekidsfoundation.org/resources/>

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Any feedback would be greatly appreciated, such as questions, comments, or details about how you have used this guide! Please contact shannon.westlake@greenmtn.edu to share feedback.

Happy Gardening!